MVA Microsoft Virtual Academy

Software Development Fundamentals

Microsoft

Gerry O'Brien| Technical Content Development Manager
Paul Pardi| Senior Content Publishing Manager

Meet Gerry O’Brien| @gerryob

- Technical Content Development Manager, Microsoft
  - Focused on developer and database platforms
  - Content author
- Over 18 years of industry experience
  - Microsoft
  - Microsoft Certified Trainer
  - Software developer and consultant
  - Book and course author
  - Visual Basic, C#, Java, Objective-C
  - Life-long learner

Meet Paul Pardi| @paulpardi

- Content Development Lead, Microsoft
  - Lead team of content developers focused on software development technologies
  - Working on internal app development
- Software and content development professional
  - Managed Windows Store merchandising team for Windows 8
  - Managed team and wrote content for Internet Explorer
  - Technical trainer and book author
  - Published Windows 8 app called Movie Notes

Course Topics

Software Development Fundamentals	
01 | General Software Development	06 | Understanding Databases
02 | Core Programming	07 | Is This for Me?
03 | Object-Oriented Programming	
04 | Web Applications	
05 | Desktop Applications	

MVA jumpstart

Setting Expectations

- Target Audience
  - Desire to get started in software development
  - Technically savvy

- Suggested Prerequisites
  - Logical thinkers
  - Have some experience with scripting or beginner programming tasks
  - Ability to understand patterns
  - Grasp of mathematical concepts such as sets and numbering systems

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01 | General Software Development

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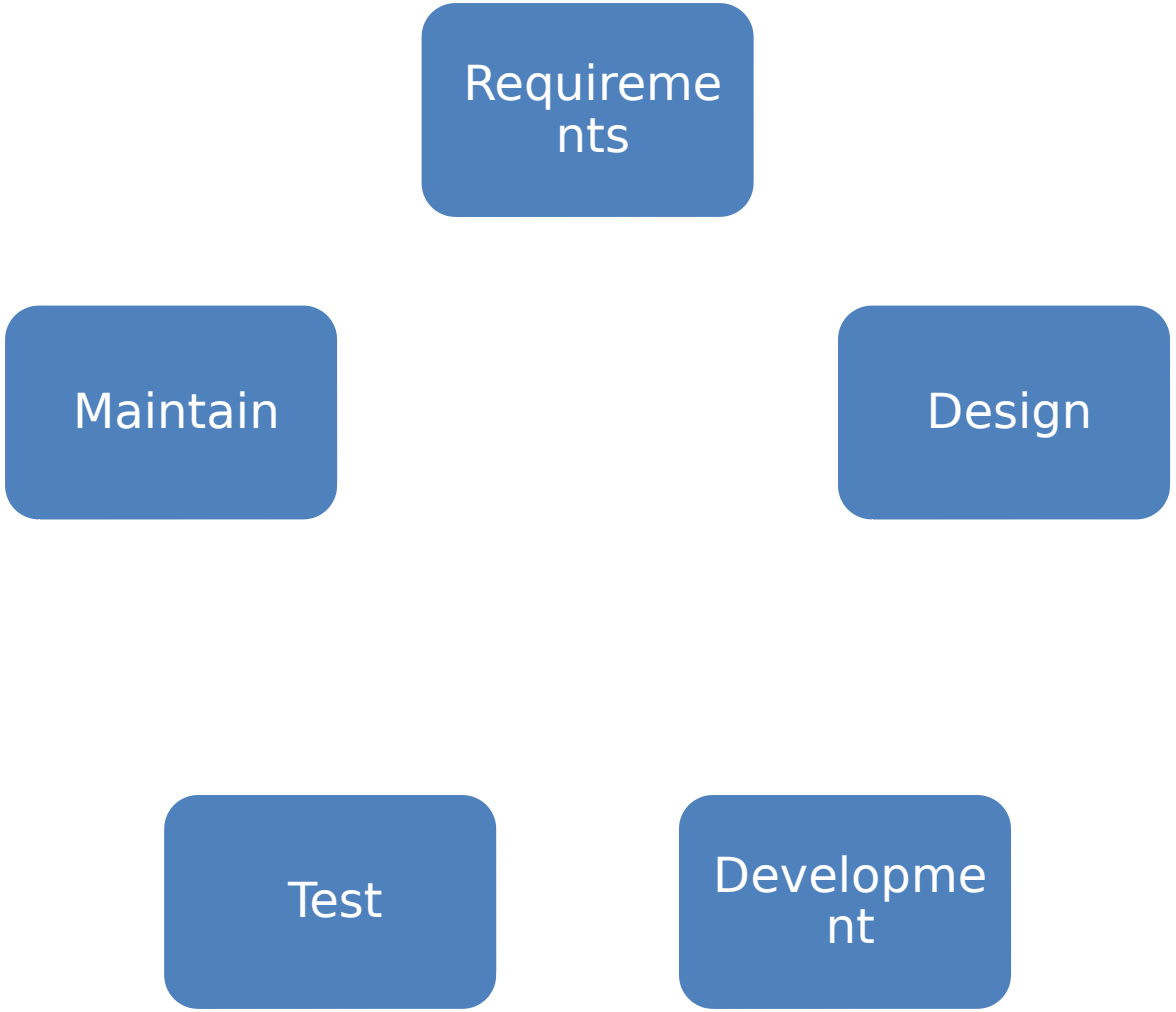
Module Overview

- Application Life-Cycle Management
- Interpret Application Specifications

Application Lifecycle Management



Application Specification

4 FEATURE LIST

1) Course List Verification.
    a. After Catalog and Pricing ETL run successfully, execute the Course List Verification routine.
    b. Notify Catalog Manager of results of verification.

2) System Logging for updates and additions.
    a. Read list of courseware changes that should be added to Catalog
    b. Validate all courseware changes were published to catalog and log changes
    c. Log ETL errors during Catalog, Pricing, and MTM ETL processes

3) Detect Retired Products in Title Manager
    a. Detect retired titles in Title Manager (TM)
    b. Run process on Catalog title to remove/hide titles that are flagged as retired in TM.

4) MTM ETL Optimization
    a. Evaluate MTM ETL for optimizations

5) Pricing ETL Updates
    a. Modify pricing process to remove import errors

6) Price Checking
    a. Query product pricing from pricing spreadsheet
    b. Query published courses for pricing
    c. Compare published pricing against pricing spreadsheet

7) Automate process for clearing RunTrack table in DB.

8) Set Title Display Status

5 LEARNING CENTRAL CATALOG PUBLISHING

5.1 FEATURE OVERVIEW

Product X is the repository for partners to distribute and consume training content, online services (e.g. virtual classroom) and labs online. The current catalog system makes use of backend data stores in the form of a SQL Server backend, two Library feeds, one that will be phased on June 30, 2011, and the newer Library 2.0 system. Library 2.0 produces data output in an XML file format with schema.

The system also makes use of an Excel spreadsheet for pricing information on courseware products. The spreadsheet is maintained by our finance deparment and a macro is used to create a flat file for import of pricing data into a staging table.

In order for partners to be able to access the courseware and content in a commerce scenario, Commerce Server is utilized as the front end for the courseware listing and purchasing operations. The data from each of these data stores is used to create the product catalog for Learning Central. The Catalog Manager runs various SQL Server SSIS ETL processes to perform the necessary catalog publishing tasks.

Initially, the publishing is to a staging server that consists of Commerce Server. The Catalog Manager will use this staging server to validate the published content against product changes/additions. Once validated, the Catalog Manager provides a sign-off and then pushes the content to the production Commerce Server system where it will be available to the partners for searching and purchasing.

The current system has a few shortcomings that have been identified by the Catalog Manager in terms of the ability to validate successful publishing of changes, error logging improvements are requested, and some automation and optimization of time consuming tasks are being sought.

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